

J-SF2

$n_d = 1.647690$

$n_e = 1.652232$

$v_d = 33.73$

$v_e = 33.47$

Glass code (d)	648337
Glass code (e)	652335

Spectral l.	Refractive idx
2.058	1.61216
1.970	1.61348
1.530	1.61980
1.129	1.62610
1.064	1.62736
t	1.62843
s	1.63280
A'	1.635977
r	1.638993
C	1.642082
C'	1.642960
He-Ne	1.643784
D	1.647523
d	1.647690
e	1.652232
F	1.661287
F'	1.662448
g	1.672677
h	1.682722
0.389	1.689162
i	-

Coef. disp. form. (pwr ser.)	
A0	2.63768374E+00
A1	-1.04781511E-02
A2	0.00000000E+00
A3	2.39749005E-02
A4	1.92856512E-03
A5	-3.66733662E-04
A6	7.71499779E-05
A7	-7.46498850E-06
A8	3.25251898E-07

Partial dispersion	
F-C	0.019205
F'-C'	0.019488
C-t	0.013654
C-A'	0.006105
d-C	0.005608
e-C	0.010150
g-d	0.024987
g-F	0.011390
h-g	0.010045
i-g	-
C'-t	0.014532
e-C'	0.009272
F'-e	0.010216
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7110
C-A'/F-C	0.3179
d-C/F-C	0.2920
e-C/F-C	0.5285
g-d/F-C	1.3011
g-F/F-C	0.5931
h-g/F-C	0.5230
i-g/F-C	-
C'-t/F'-C'	0.7457
e-C'/F'-C'	0.4758
F'-e/F'-C'	0.5242
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0004
ΔPgF	0.0053

Internal CC (80%/5%)	
382/354	

Color Code (80%/5%)	
390/355	

CCI	
B	0.00
G	1.03
R	1.02

Thermal properties	
CTE(-30,70) [1E-7/°C]	90
CTE(100,300) [1E-7/°C]	117
Tg [°C]	540
At [°C]	577
Ht condct. [W/m·K]	1.002
Sp. heat [kJ/kg·K]	0.742
Ht diffus. [1E-6 m2/sec]	0.495

Chemical properties [class]	
Acid res. (surface)	1
Alkaline detergent res.	1
Climate resistance	1
Water res. (powder)	2
Acid res. (powder)	1

Mechanical properties	
Knoop hardness	490 (5)
Abrasion hardness	151
Young's mod. [GPa]	80.5
Shear mod. [GPa]	32.3
Poisson's ratio	0.247
Stress optical coef. [1E-5 nm/cm/Pa]	2.70

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.00
340	0.00
350	0.01
360	0.16
370	0.49
380	0.77
390	0.900
400	0.952
420	0.981
440	0.987
460	0.990
480	0.993
500	0.994
550	0.998
600	0.998
650	0.997
700	0.997
800	0.997
900	0.996
1000	0.997
1200	0.998
1400	0.996
1600	0.989
1800	0.967
2000	0.947
2200	0.89
2400	0.85

Specific gravity	
2.72	

Relative $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90 (ref.)	0.1	0.2	0.3	0.6	0.8	1.0	1.1	1.2	1.5	1.9	2.7	2.9	4.0	5.3	6.3	
60 to 80 (ref.)	0.0	0.1	0.3	0.5	0.7	0.9	1.0	1.1	1.4	1.8	2.6	2.7	3.8	5.1	6.0	
40 to 60	0.0	0.0	0.2	0.4	0.6	0.8	0.9	1.0	1.2	1.6	2.4	2.5	3.6	4.8	5.7	
20 to 40	-0.1	0.0	0.2	0.3	0.5	0.7	0.8	0.9	1.1	1.5	2.3	2.4	3.4	4.5	5.4	
0 to 20	-0.1	-0.1	0.1	0.3	0.5	0.7	0.8	0.8	1.1	1.4	2.1	2.2	3.2	4.3	5.1	
-20 to 0	-0.1	0.0	0.2	0.3	0.5	0.7	0.8	0.8	1.1	1.4	2.1	2.2	3.1	4.1	4.9	
-40 to -20	0.1	0.1	0.3	0.4	0.6	0.8	0.8	0.9	1.1	1.4	2.1	2.2	3.0	4.0	4.7	
-60 to -40 (ref.)	0.2	0.3	0.4	0.6	0.8	0.9	1.0	1.0	1.3	1.6	2.2	2.3	3.1	4.0	4.7	
-70 to -60 (ref.)	0.5	0.5	0.7	0.8	1.0	1.1	1.2	1.2	1.5	1.7	2.3	2.4	3.2	4.1	4.7	

Absolute $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90	-0.9	-0.8	-0.6	-0.4	-0.2	0.0	0.1	0.1	0.5	0.9	1.7	1.8	3.0	4.3	5.2	
60 to 80	-1.1	-1.0	-0.8	-0.6	-0.4	-0.2	-0.1	0.0	0.3	0.6	1.5	1.6	2.7	3.9	4.8	
40 to 60	-1.3	-1.2	-1.0	-0.8	-0.6	-0.4	-0.4	-0.3	0.0	0.3	1.1	1.2	2.3	3.5	4.4	
20 to 40	-1.5	-1.4	-1.3	-1.1	-0.9	-0.7	-0.6	-0.6	-0.3	0.0	0.8	0.9	1.9	3.0	3.9	
0 to 20	-1.7	-1.7	-1.5	-1.3	-1.1	-0.9	-0.9	-0.8	-0.6	-0.2	0.5	0.6	1.5	2.6	3.4	
-20 to 0	-1.9	-1.9	-1.7	-1.6	-1.4	-1.2	-1.1	-1.1	-0.8	-0.5	0.1	0.2	1.1	2.1	2.9	
-40 to -20	-2.1	-2.1	-1.9	-1.8	-1.6	-1.5	-1.4	-1.4	-1.1	-0.8	-0.2	-0.1	0.7	1.7	2.4	
-60 to -40	-2.3	-2.3	-2.2	-2.0	-1.9	-1.7	-1.7	-1.6	-1.4	-1.1	-0.5	-0.4	0.4	1.2	1.9	
-70 to -60	-2.5	-2.5	-2.3	-2.2	-2.1	-1.9	-1.9	-1.8	-1.6	-1.3	-0.8	-0.7	0.1	0.9	1.5	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.16164065E-01
Q1	8.55335644E+01
P2	1.75342706E-02
Q2	5.79488130E-02
P3	3.35341056E-01
Q3	7.82326842E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.8	3.9
Frac. eq. (ref.)	1.2	8.4

Prod. Freq. (A to D)	B
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Similar glass type			
OHARA	S-TIM22	HOYA	E-FD2
CDGM	H-ZF1	SCHOTT	N-SF2

2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq
2009-9-1	1st edition